

Project - App(Cross Platform) for Examination

To Create an app for the conduct of examination in a proctored way.

First of all I would like to mention that we use **“ANDROID STUDIO”** that is one of the **“Best Free Open Source”** to create our **“Android Application”**

We have tried our best to add all the necessary things which is necessary to Create app more **“User Friendly”**.

We added these things to Our Application :-

Features

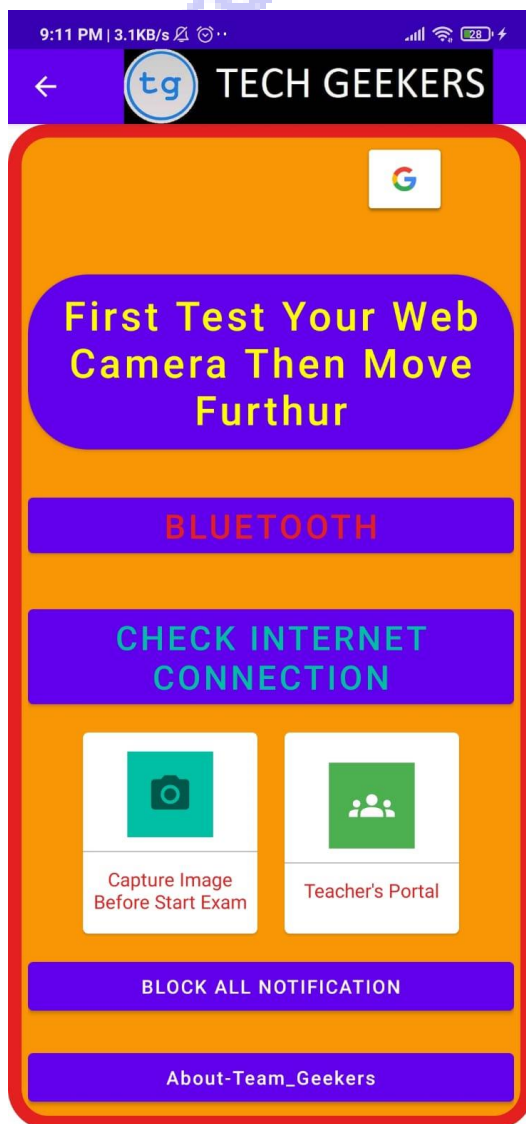
Following Features Need to be implemented and provided

- Authentication system for making student login using LDAP by taking the following permissions from the user.
 1. After accepting the terms and conditions user will not be able to use any application other than this app
 2. He/She may not be able to close, minimize or change the size of window screen
 3. Only WiFi and mobile data can be turned on, no other options such as Bluetooth etc can be turned on.
 4. Calls and Notifications will be blocked.
- After login the user will be directed to the main page where exam can be conducted.
- Only the services provided by exam branch will appear on the screen of device such as question papers, calculators, log tables, etc

- A portal for teacher for uploading question papers and to provide other tools required for exam such as calculator.

Now let me tell about How we **Create this application in 48hrs.**

1. Authentication system for making student login
- I have added **google sign in Integration** for the Secure Login :-



THIS IS OUR APPLICATION UI DESIGN

At the top of the App Team name is mentioned that is TECH_GEEKERS

Now coding Part For this INTERFACE which covers

1. google sign in
2. first test your web cam then move further
3. Bluetooth checking button
4. check internet access or check it is off or on
5. two card view buttons which consist of CAPTURE IMAGE before start of the Examination
6. block all the unwanted notification activities in app while exam
7. At last about our team Overview

Team – **VIVEK DHIMAN , DEEPAK KUMAR , VANSHIKA CHAUDHARY , DALIP KUMAR**

is :-

ACTIVITY_MAIN.XML

```
<?xml version="1.0" encoding="utf-8"?>

<ScrollView xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/apk/res/android">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        android:padding="15dp"
        android:background="@drawable/strokes"
        tools:context=".MainActivity">

        <com.google.android.gms.common.SignInButton
```

```
android:id="@+id/google"
android:layout_width="62dp"
android:layout_height="wrap_content"
android:layout_marginLeft="250dp"
app:buttonSize="icon_only"
tools:layout_editor_absoluteX="-16dp"
tools:layout_editor_absoluteY="338dp">
```

```
</com.google.android.gms.common.SignInButton>
```

```
<Button
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="45dp"
    android:text="First Test Your Web Camera Then Move Furthur"
    android:textAllCaps="false"
    android:textColor="@color/yellow"
    android:textSize="30dp"
    android:background="@drawable/round_edges"
    android:id="@+id/web"
/>
```

```
<Button
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/btnn"
    android:text="Bluetooth"
    android:src="@drawable/ic_baseline_bluetooth_24"

    android:textSize="25dp"

    android:textColor="@color/red"
    android:layout_marginTop="30dp"
/>
```

```
<Button
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/wifi"
    android:textSize="25dp"
    android:textColor="@color/green"
    android:text="Check internet connection"
    android:layout_marginTop="30dp"
/>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
```

```

        android:orientation="horizontal"
        android:layout_margin="5dp">
        <com.google.android.material.card.MaterialCardView
            android:layout_width="130dp"
            android:layout_height="150dp"
            android:layout_margin="10dp"
            android:id="@+id/addUpload">

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:orientation="vertical"
                android:gravity="center">

                <ImageView
                    android:layout_width="64dp"
                    android:layout_height="64dp"
                    android:background="@color/green"

                    android:src="@drawable/ic_baseline_photo_camera_24"
                    android:padding="15dp"
                ></ImageView>

                <View
                    android:layout_width="match_parent"
                    android:layout_height="1dp"
                    android:background="@color/gray"
                    android:layout_marginTop="10dp"/>

                <TextView
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="Capture Image Before Start Exam"
                    android:gravity="center"
                    android:layout_marginTop="10dp"
                    android:textColor="@color/red"/>

            </LinearLayout>

        </com.google.android.material.card.MaterialCardView>

        <com.google.android.material.card.MaterialCardView
            android:layout_width="130dp"
            android:layout_height="150dp"
            android:layout_margin="10dp"
            android:id="@+id/addGroup">

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:orientation="vertical"
                android:gravity="center">

```

```

        <ImageView
            android:layout_width="64dp"
            android:layout_height="64dp"
            android:background="@color/gr"
            android:src="@drawable/ic_baseline_groups_24"
            android:padding="15dp"
        ></ImageView>

        <View
            android:layout_width="match_parent"
            android:layout_height="1dp"
            android:background="@color/gray"
            android:layout_marginTop="10dp"/>

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Teacher's Portal"

            android:layout_marginTop="10dp"
            android:textColor="@color/red"
        />

    </LinearLayout>

</com.google.android.material.card.MaterialCardView>

```

```

</LinearLayout>

```

```

<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="bLOCK ALL NOTIFICATION"
    android:id="@+id/block"/>

```

```

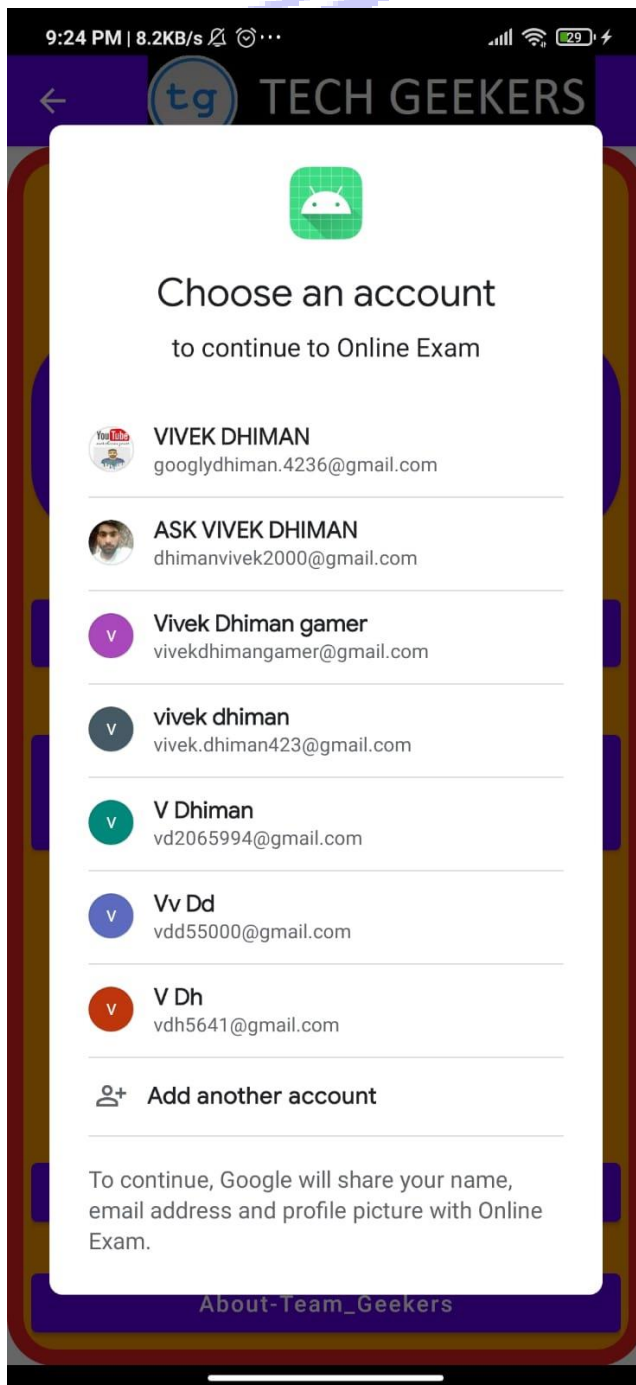
<Button
    android:layout_marginTop="20dp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="About-Team_Geekers"
    android:textAllCaps="false"
    android:id="@+id/gee"/>

```

</LinearLayout>

</ScrollView>

Now let me Click On **Google Sign In Button** :-



This is the Activity when we click on Google sign In Button (Here is the mails coming to select for sign in)

Coding Part For the Same + **Google Sign In** Integration is:-

MAINACTIVITY.JAVA :-

```
package com.example.onlineexam;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.appcompat.app.ActionBar;
import androidx.appcompat.app.AppCompatActivity;
import androidx.cardview.widget.CardView;

import android.bluetooth.BluetoothAdapter;
import android.content.Intent;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.net.wifi.WifiManager;
import android.os.Bundle;
import android.util.Log;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

import com.google.android.gms.auth.api.signin.GoogleSignIn;
import com.google.android.gms.auth.api.signin.GoogleSignInAccount;
import com.google.android.gms.auth.api.signin.GoogleSignInClient;
import com.google.android.gms.auth.api.signin.GoogleSignInOptions;
import com.google.android.gms.common.SignInButton;
import com.google.android.gms.common.api.ApiException;
import com.google.android.gms.tasks.Task;
import com.google.android.material.snackbar.Snackbar;

public class MainActivity extends AppCompatActivity implements
View.OnClickListener {

    SignInButton google;
    GoogleSignInClient mGoogleSignInClient;
    int RC_SIGN_IN = 0;

    Button web,wifi,gee;
    Button bttn,block;
```



```
BluetoothAdapter ba;  
CardView addGroup,addUpload;
```

```
@Override  
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
  
    addGroup = findViewById(R.id.addGroup);  
    addUpload = findViewById(R.id.addUpload);  
    gee = findViewById(R.id.gee);  
  
    block = findViewById(R.id.block);  
    addGroup.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View v) {  
Intent intent6 = new Intent(MainActivity.this,Teachers.class);  
startActivity(intent6);  
        }  
    });  
    getSupportActionBar().setDisplayHomeAsUpEnabled(true);  
    getSupportActionBar().setIcon(R.drawable.geekers);  
    getSupportActionBar().setTitle("Tech_Geekers");  
  
    ba = BluetoothAdapter.getDefaultAdapter();  
  
    ConnectivityManager cm;  
  
    getSupportActionBar().setDisplayHomeAsUpEnabled(true);  
  
    block.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View v) {  
            Intent intent45 = new  
Intent(MainActivity.this,block_notification.class);  
            startActivity(intent45);  
        }  
    });  
  
    gee.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View v) {  
  
Intent intent2222 = new Intent(MainActivity.this,ThirdActivity.class);  
startActivity(intent2222);  
        }  
    });  
}
```

```
    }  
});
```

```
addUpload.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View v) {  
Intent intent11 = new Intent(MainActivity.this,cameraclick.class);  
startActivity(intent11);  
    }  
});
```

```
web = findViewById(R.id.web);  
btnn = findViewById(R.id.btnn);  
  
cm= (ConnectivityManager)  
getSystemService(CONNECTIVITY_SERVICE);  
  
wifi =findViewById(R.id.wifi);  
wifi.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View v) {  
  
        NetworkInfo ni = cm.getActiveNetworkInfo();  
        if(ni!=null&&ni.isConnected()&&ni.isAvailable()){  
            Snackbar.make(v,"internet is  
connected",Snackbar.LENGTH_LONG).show();  
  
        }  
        else  
            Snackbar.make(v,"internet is off (turn it  
On)",Snackbar.LENGTH_LONG).show();  
    }  
});
```

```
btnn.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View v) {  
        if(v==btnn){
```

```

        if(ba.isEnabled())
            Toast.makeText(MainActivity.this, "Bluetooth is
On (Turn It Off)", Toast.LENGTH_SHORT).show();
        else
            Toast.makeText(MainActivity.this, "Bluetooth is
Off (GOOD)", Toast.LENGTH_SHORT).show();
    }
}

```

```

    });

    google = findViewById(R.id.google);

    google.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            switch (v.getId()) {
                case R.id.google:
                    signIn();
                    break;
            }
        }
    });

    web.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intentt = new
Intent(MainActivity.this,webpage.class);
            startActivity(intentt);
        }
    });
}

```

```

        GoogleSignInOptions gso = new
GoogleSignInOptions.Builder(GoogleSignInOptions.DEFAULT_SIGN_IN)
            .requestEmail()
            .build();

        mGoogleSignInClient = GoogleSignIn.getClient(this, gso);
    }
}

```

```

    private void signIn() {
        Intent signInIntent =
mGoogleSignInClient.getSignInIntent();
        startActivityForResult(signInIntent, RC_SIGN_IN);
    }
    @Override

```

```

    public void onActivityResult(int requestCode, int resultCode,
Intent data) {
        super.onActivityResult(requestCode, resultCode, data);

        // Result returned from launching the Intent from
        GoogleSignInClient.getSignInIntent(...);
        if (requestCode == RC_SIGN_IN) {
            // The Task returned from this call is always completed, no
            need to attach
            // a listener.
            Task<GoogleSignInAccount> task =
            GoogleSignIn.getSignedInAccountFromIntent(data);
            handleSignInResult(task);
        }
    }

    private void handleSignInResult(Task<GoogleSignInAccount>
completedTask) {
        try {
            GoogleSignInAccount account =
            completedTask.getResult(ApiException.class);

            // Signed in successfully, show authenticated UI.

            Intent intent = new
            Intent(MainActivity.this,SecondActivity.class);

            startActivity(intent);
        } catch (ApiException e) {
            // The ApiException status code indicates the detailed
            failure reason.
            // Please refer to the GoogleSignInStatusCodes class
            reference for more information.

            Log.w( "Error", "signInResult:failed code=" +
            e.getStatusCode());
        }
    }

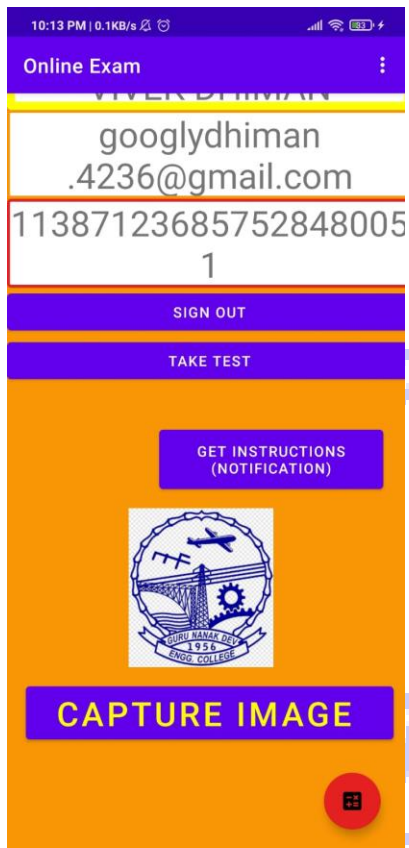
    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        if(item.getItemId()==android.R.id.home)
            onBackPressed();
        return super.onOptionsItemSelected(item);
    }
}

```

```
@Override
public void onClick(View v) {

}
}
```





After sign in we came to this activity as shown in pics above.

This app activity covers :-

1. User name
2. User email
3. User id or roll no.
4. Sign out button
5. Get instructions notification
6. Capture or upload image to get started for the exam
7. We also add calculator for students

Now coding part for the same is :-

ACTIVITY_SECOND.XML

```
<RelativeLayout xmlns:tools="http://schemas.android.com/tools"
    android:layout_height="match_parent"
    android:layout_width="match_parent"

    android:orientation="vertical"
```

```
android:background="@color/orange"
```

```
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto">
```

```
<ScrollView
    android:layout_width="match_parent"
    android:layout_height="643dp">
```

```
<LinearLayout
    android:layout_width="400dp"
    android:layout_height="667dp"
    android:orientation="vertical"
    tools:context=".SecondActivity">
```

```
<com.google.android.material.card.MaterialCardView
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
```

```
app:strokeColor="@color/yellow"  
app:strokeWidth="8dp">
```

```
<TextView
    android:id="@+id/name"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:text="Name"
    android:textSize="35sp"
    tools:layout_editor_absoluteX="-16dp"
    tools:layout_editor_absoluteY="377dp" />
</com.google.android.material.card.MaterialCardView>
```

```
<com.google.android.material.card.MaterialCardView
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
```

```
app:strokeColor="@color/orange"
app:strokeWidth="3dp">
```

```
<TextView
    android:id="@+id/email"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

```
        android:gravity="center"
        android:text="Email id"
        android:textSize="35sp"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="255dp" />
    </com.google.android.material.card.MaterialCardView>
```

```
<com.google.android.material.card.MaterialCardView
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

```
    app:strokeColor="@color/red"
    app:strokeWidth="3dp">
```

```
    <TextView
        android:id="@+id/id"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:text="id"
        android:textSize="35sp"
        tools:layout_editor_absoluteX="16dp"
        tools:layout_editor_absoluteY="111dp" />
```

```
</com.google.android.material.card.MaterialCardView>
```

```
<Button
    android:id="@+id/sign_out"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="sign out"
    tools:layout_editor_absoluteX="-16dp"
    tools:layout_editor_absoluteY="560dp" />
```

```
<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="take test"
    android:id="@+id/tt"/>
```

```
<Button
    android:id="@+id/g"
    android:layout_width="221dp"
    android:layout_height="70dp"
    android:layout_marginLeft="150dp"
    android:layout_marginTop="38dp"
    android:gravity="center"
    android:text="Get Instructions (Notification)" />
```

```
<ImageView
```



```
        android:id="@+id/uu"
        android:layout_width="143dp"
        android:layout_height="183dp"
        android:layout_marginLeft="120dp"
        android:src="@drawable/download" />
```

```
    <Button
        android:id="@+id/CAMM"
        android:layout_width="363dp"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:gravity="center"
        android:text="Capture image "

        android:textColor="@color/yellow"
        android:textSize="33sp" />
```

```
</LinearLayout>
```

```
</ScrollView>
```

```
<com.google.android.material.floatingactionbutton.FloatingActionButton
    android:layout_width="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentEnd="true"
    android:layout_margin="24dp"
    android:src="@drawable/ic_baseline_calculate_24"
    app:backgroundTint="@color/red"
    android:id="@+id/cal"
    android:layout_height="wrap_content"
    >
```

```
</com.google.android.material.floatingactionbutton.FloatingActionButton
>
```

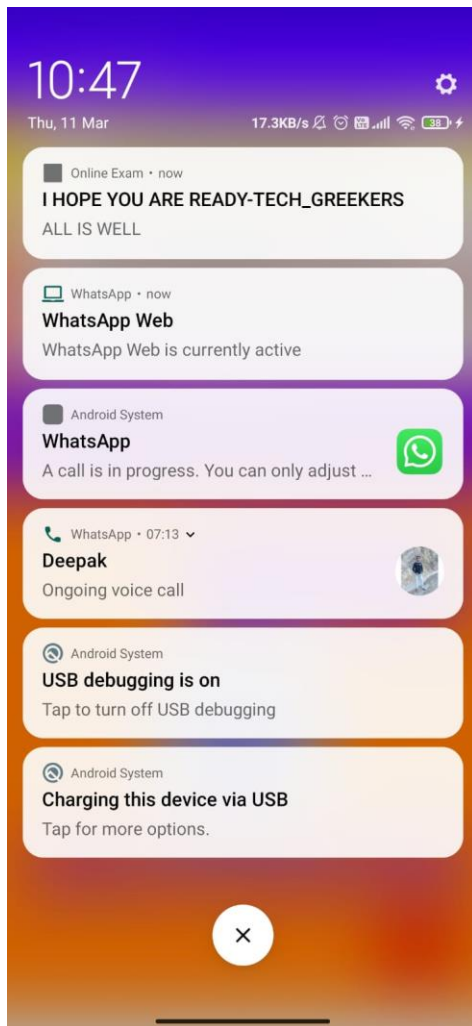
```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">
```

```
</LinearLayout>
```

</RelativeLayout>

Now let me show you how I make my app :-

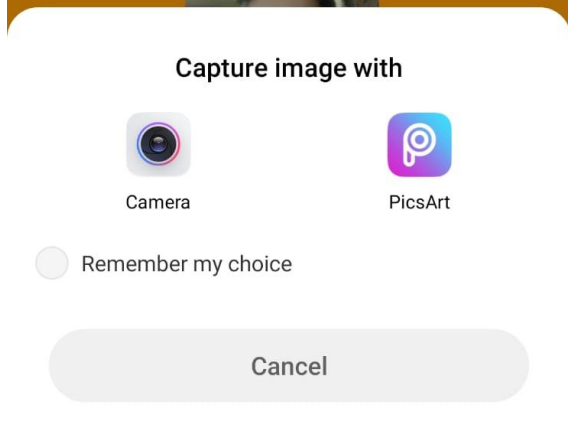
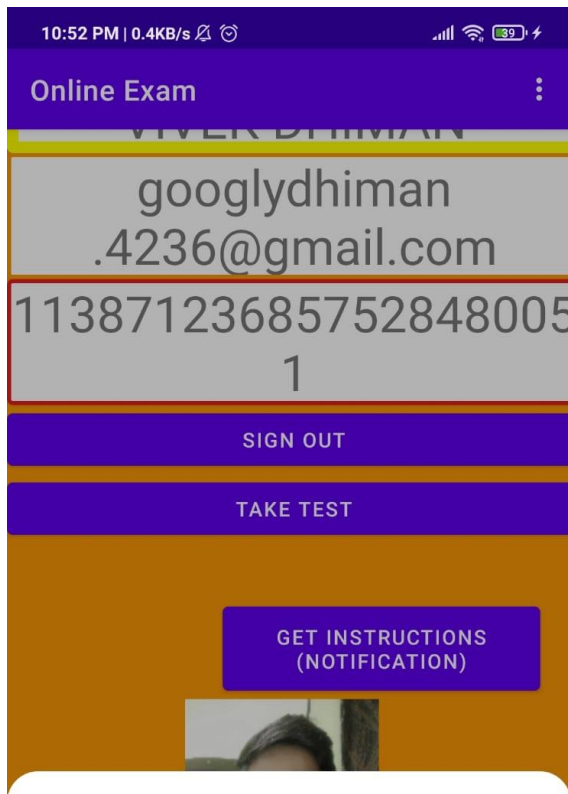




WHEN I CLICK ON NOTIFICATION THIS
MOBILE NOTIFICATION OCCURS–

I HOPE YOU ARE READY – TECH_GREEKERS
ALL IS WELL

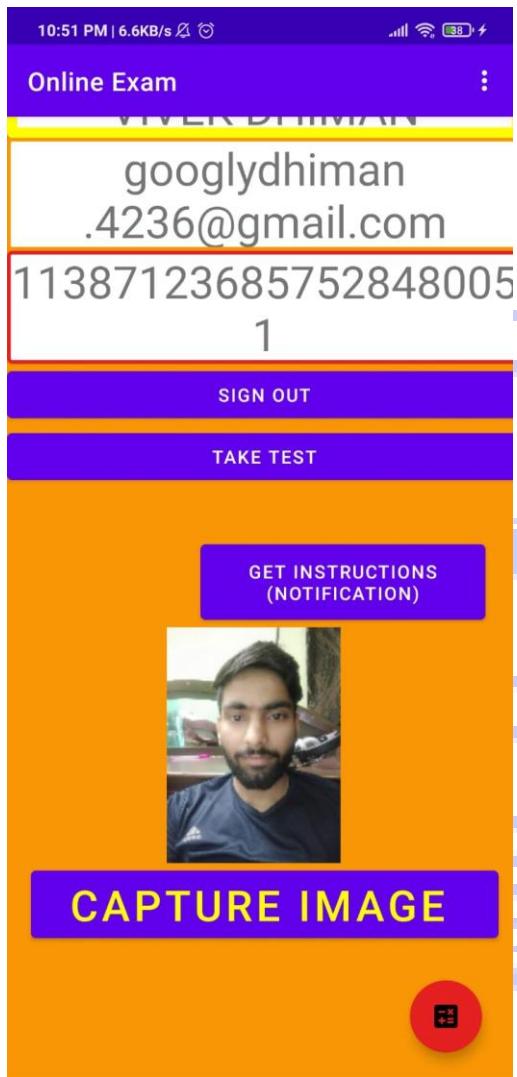
Now User Click On Capture Image then this **pop up** Occurs –



user may have to click image and then click on **tick button**

Then this interface occurs –





here is my pic have been saved and I am ready to **take test**

When I click on **take test** then this interface occurs –



10:56 PM | 16.4KB/s

Online Exam

Untitled form

MCQ Test on cyber security

*Required

1. Which of the following is an anti virus program

- ☐ Norton
- ☐ K7
- ☐ Quick heal
- ☐ All of these
- ☐ Other: _____

2. All of the follow security and priva

Request edit access

OPEN TEST

_____ here is the test and **user not came out** of the **test** either he or she may try to **click back** key of his or her mobile.

We have updated test portion by adding **Calculator** in it –

8:26 AM | 3.5KB/s

Online Exam

Untitled form

MCQ Test on cyber security


*Required

1. Which of the following is an anti virus program

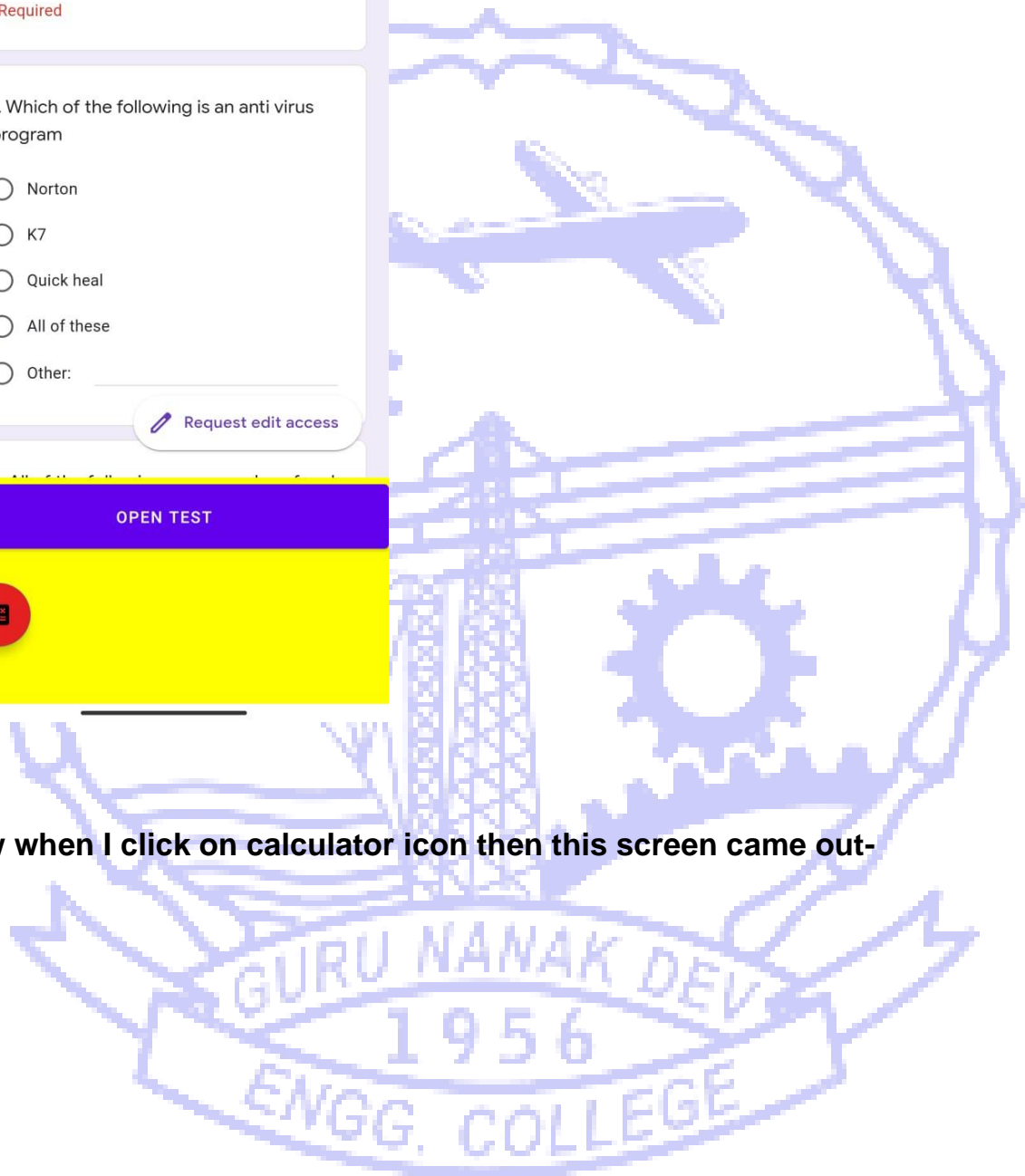
- ☐ Norton
- ☐ K7
- ☐ Quick heal
- ☐ All of these
- ☐ Other: _____

[Request edit access](#)

OPEN TEST



Now when I click on calculator icon then this screen came out-



Online Exam

Enter First Number

Enter Second Number

SUM

MINUS

MULTIPLY

DIVIDE

here user may **ADD** , **SUB.** , **MUL.** And **DIV.**

We Have also added **TEACHERS PORTAL** to Upload Question Papers

-

GURU NANAK DEV
1956
ENGG. COLLEGE

11:43 PM | 1.7KB/s



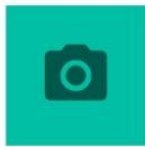
TECH GEEKERS



**First Test Your Web
Camera Then Move
Furthur**

BLUETOOTH

**CHECK INTERNET
CONNECTION**



Capture Image
Before Start Exam



Teacher's Portal

BLOCK ALL NOTIFICATION

About-Team_Geekers

When Teacher click on **TEACHER'S PORTAL** as shown Button above then this activity occurs –



11:43 PM | 3.6KB/s



Online Exam

Administrative Signin

Username / Email

Password

[forgot?](#)

SIGN IN

Please Contact support@speedexam.net in case of any query.

Don't have speedexam account ? [Create for free](#)

GO TO PORTAL

here Sign in and

then upload or create **Question Papers Or Attendance Part**

NOW LET ME EXPLAIN BREEFLY ABOUT MY PROJECT –

My application follow all the requirement needed by HACKATHON 1.1

My applications gives application a new **unique** user **friendly** look which is must for all the developer to execute in their application.

Here is my apk link –

https://drive.google.com/file/d/19_uXUSmhyxo6lXiRCxsPbXVTVH6g_H9c/view

this link is of my google drive I have uploaded apk there

now here is my full apk source
code if you want to run or install
apk through **ANDROID STUDIO**
and **PDF of this Project**

- [https://drive.google.com/file
/d/19me7HeJn5EDN8ZM3rij
Ykih7ekyQlsNg/view](https://drive.google.com/file/d/19me7HeJn5EDN8ZM3rijYkih7ekyQlsNg/view)

Thankyou for conducting
Hackathon 1.1

